

WHAT IS CLAIMED IS:

1. An method for forming an image using an image processing device,  
comprising:

inputting image data representing an image;

5 determining drop assignment values to provide a multi-level output;

and

forming images based on the image data and the determined drop  
assignment values, wherein the drop assignment values overlap.

2. The image processing method of claim 1, further comprising running  
10 independent drop assignment routines.

3. The image processing method of claim 2, wherein one of the drop  
assignment routines is error diffusion.

4. The image processing method of claim 2, wherein one of the drop  
assignment routines is half-toning.

15 5. The image processing method of claim 2, wherein a gray level  
introduced by one of the drop assignment routines is lower than another or the drop  
assignment routines.

6. The image processing method of claim 1, wherein the drop assignment  
includes assigning various drop sizes to at least two levels.

20 7. The image processing method of claim 1, wherein the drop assignment  
includes assigning various number of drops to at least two levels.

8. The image processing method of claim 1, wherein the drop assignment  
includes assigning various drop sizes to at least two levels.

25 9. The image processing method of claim 1, wherein the drop assignment  
includes assigning drops of varying concentration to at least two levels.

10. The image processing method of claim 1, comprising running one drop  
assignment routine.

11. An image processing device, comprising:  
an image data input device that inputs image data representing an  
30 image; and

a drop assignment determination circuit that determines drop  
assignment values to provide a multi-level output; and

009731662-120800

an imager that forms images based on the image data and the determined drop assignment values, wherein the drop assignment values overlap.

12. The image processing device of claim 11, further comprising a drop assignment circuit that runs independent drop assignment routines.

5 13. The image processing device of claim 12, wherein one of the drop assignment routines is error diffusion.

14. The image processing device of claim 12, wherein one of the drop assignment routines is half-toning.

10 15. The image processing device of claim 12, wherein a gray level introduced by one of the drop assignment routines is lower than another or the drop assignment routines.

16. The image processing device of claim 11, wherein the drop assignment includes assigning various drop sizes to each level.

15 17. The image processing device of claim 11, wherein the drop assignment includes assigning various number of drops to each level.

18. The image processing device of claim 11, wherein the drop assignment includes assigning various drop sizes to each level.

19. The image processing device of claim 11, wherein the drop assignment includes assigning drops of varying concentration to each level.

20 20. The image processing device of claim 11, comprising a drop assignment circuit that runs one drop assignment routine.

003021-130300